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HARVARD MEDICAL  
ALUMNI bulletin

November/December 1972



The negative power of clinically significant anxiety  
in angina pectoris...



This man feels he is living  
on borrowed time.

During anginal attacks, patients may suffer intense apprehension. More frequently, however, they experience a continuing sense of less severe but nonetheless disproportionate anxiety.

Reduction of such clinically significant anxiety is important, since undue emotional stress may precipitate further anginal episodes.

*Adjunctive Librium (chlordiazepoxide HCl) may be especially suitable for relief of clinically significant anxiety and emotional tension in anginal patients because of its generally prompt therapeutic effectiveness and wide margin of safety. In a recent double-blind randomized study,\* Librium (chlordiazepoxide HCl) was administered for relief of moderate anxiety in 20 anginal patients seen in office practice over a 20-week period. Symptoms of emotional distress related to anxiety were rated at base-line, one week, two weeks and monthly thereafter. Relief was obtained notably early in therapy. The clinical results demonstrated that Librium offers the coronary patient an antianxiety drug that, in the author's opinion, is both effective and safe. In general use, the most common side effects reported have been drowsiness, ataxia and confusion, particularly in the elderly and debilitated. (See summary of prescribing information.)*

*Librium (chlordiazepoxide HCl) is used concomitantly with certain specific medications of other classes of drugs, such as cardiac glycosides, diuretics and antihypertensive agents, whenever anxiety is clinically significant. The drug should be discontinued after anxiety has been reduced to appropriate levels.*

The positive power of  
adjunctive  
**Librium®**  
(chlordiazepoxide HCl)

10-mg, 25-mg capsules  
up to 100 mg daily

for moderate  
to severe anxiety  
accompanying angina pectoris

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Before prescribing, please consult complete product information, a summary of which follows:

**Indications:** Relief of anxiety and tension occurring alone or accompanying various disease states.

**Contraindications:** Patients with known hypersensitivity to the drug.

**Warnings:** Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards.

**Precautions:** In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and acute rage) have been reported in psychiatric patients and hyperactive aggressive children. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

**Adverse Reactions:** Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido — all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.

**Supplied:** Librium® Capsules containing 5 mg, 10 mg or 25 mg chlordiazepoxide HCl. Libritabs® Tablets containing 5 mg, 10 mg or 25 mg chlordiazepoxide.

\*Levine, S.: "Angina Pectoris and Emotional Overlay," Scientific Exhibit presented at the Annual Meeting of the Maine Medical Association, Kennebunkport, Me., June 13-15, 1971.

A copy of the Levine study may be obtained from your Roche representative.



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## CONTENTS

OVERVIEW . . . . .	4
REMINISCENCES . . . . .	9
EDITORIALS . . . . .	11
THE CASE OF THE TALENTED BAKERS . . . . . <i>by John T. Noonan</i>	12
CHANGING OURSELVES: ARROGANCE OR OBLIGATION . . . . . <i>by Robert S. Morison</i>	18
GEORGE ROGERS HALL: "PILLS AND PLANTS" . . . . . <i>by George E. Gifford, Jr.</i>	22
THE TWAIN MET . . . . .	26
ALUMNI NOTES . . . . .	28
EDWARD DELOS CHURCHILL . . . . .	35
DEATH NOTICES . . . . .	38

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*The opinions of contributors to the Bulletin do not  
necessarily reflect those of the Editorial Staff.*

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## PRESIDENT'S CANCER COMMITTEE

Responding to the growing need for a University-wide approach to the study of cancer, President Derek C. Bok has formed the President's Committee on Cancer. Members of this Committee, in addition to the President, will be John T. Dunlop, Dean of the Faculty of Arts and Sciences, Robert H. Ebert, Dean of HMS, and Howard H. Hiatt '48, Dean of the Harvard School of Public Health.

The primary concerns of this Committee will be to promote exchange of information on current cancer activities; encourage cooperation in patient care, research, and teaching; coordinate interfaculty teaching and research programs; and stimulate the development and funding of interfaculty programs.

To assist the work of this Committee, each of the three faculties will organize its own appropriate internal committee. The Medical School Committee will be particularly concerned with facilitating the teaching of oncology to medical students and postgraduate trainees, and improving communication among clinicians and researchers. The Committee of the School of Public Health will help promote teaching and research programs throughout the University concerned with cancer prevention. The Faculty of Arts and Sciences Committee will be particularly interested in basic research and the training of Ph.D. students both in Cambridge and Boston.

In addition to the President's Committee, there will be a University-wide technical subcommittee of cancer specialists to advise on implementation of the Committee's goals.

The formation of the President's

Committee is an outgrowth of a University-wide Cancer Meeting held at the Medical School in June. Harvard's concern with the problem of cancer, however, is a long-standing one. Since the Harvard Cancer Commission was established in 1899, there have been many basic scientists, epidemiologists, and clinicians who have made significant contributions to the understanding of the problem and to the management of

the cancer patient. As awareness of the complexity of the cancer problem grows and as the need for multidisciplinary approaches becomes more evident, it is anticipated that the President's Committee will be a significant force in bringing together the talents and resources of the entire University in its effort to improve patient care and expand basic research in this vital area of public concern.

IRVING M. LONDON

### AWARDED DUAL APPOINTMENT

Irving M. London '43A, director of the Harvard-Massachusetts Institute of Technology Program in Health Sciences and Technology, has been appointed professor of medicine in Harvard University and MIT. The dual appointment is the first of its kind between the two institutions.

Dr. London is also professor of biology at MIT, visiting professor of medicine at Albert Einstein College of Medicine, and physician at the Peter Bent Brigham Hospital.

An outstanding researcher, Dr. London has made important contributions to the knowledge of human red blood cells in both normal and disease states. Early research with his colleagues in the department of biological chemistry at Columbia University, led to the development of methods by which the normal life span of human red blood cells could be ascertained. This, in turn, led to studies of the life span of abnormal red blood cells in a variety of diseases including sickle cell anemia,

polycythemia vera, and pernicious anemia.

He was among those who early recognized the opportunities for new and decisive experimentation based on the emerging knowledge of molecular biology and has employed this methodology to advantage in studying the mutual metabolic control of heme and globin synthesis.

In 1970 Dr. London was named director of the Harvard-MIT Program. The Program, which has completed its first academic year, is a major collaborative effort of the two institutions to focus science and technology on human health needs.

Among the many honors accorded Dr. London was the receipt, in 1966, of the honorary Sc.D. degree from the University of Chicago. Last year he was elected to the National Academy of Sciences and was named a member of the executive committee of the Institute of Medicine. In 1952 he received the Theobald Smith Award in Medical Sciences from the AAAS.



# HMS To Welcome Swiss Specialist

Alain B. Rossier, M.D., a Swiss specialist in the treatment of paraplegia and quadriplegia, will become professor of social medicine and spinal cord rehabilitation in the Faculty of Medicine at Harvard and at the West Roxbury Veterans Administration Hospital where he will also serve as director of the Spinal Cord Injury Service in March, 1973.

Himself a paraplegic as a result of a diving accident, Dr. Rossier has brought unique understanding to the treatment of this disorder. He has been granted a certificate of registration by a special act of the Massachusetts Legislature to enable him to practice in the United States.

The first man to be trained specially as a spinal traumatologist, Dr. Rossier is described by his colleagues as a "creative researcher," "an excellent administrator," and "an able and articulate teacher."

Currently, he is director of the Spinal Cord Injury Service of the University of Geneva, Switzerland, which he established in 1964 and has built into one of the world's outstanding paraplegic units, and one of the few intimately linked to a medical school.

Prior to establishing the center, Dr. Rossier spent seven years preparing himself for his specialty, four in outstanding centers of rehabilitation for paraplegia and physical medicine. He worked in Zurich for a year in orthopedics, a year each in neurosurgery and urology, and another full year in internal medicine and rehabilitation. He has his Swiss Specialty Boards in Physical Medicine and Rehabilitation.

One of Dr. Rossier's many innovations in the clinical treatment of paraplegics is the concept of continuous care from the moment of injury through the period of chronic management. This has enabled the average patient at his clinic to be home in five to six months. His emphasis on anterior spinal fusion has allowed patients to move from bed to chair much more quickly.

Dr. Rossier was among the first to stress the importance of the physiology of the bladder in treatment of this disorder, and he has so improved this area that not one of his patients in the last five years has had an external urinary diversion operation, though some American authorities advocate cystotomy within a few days of accident.

In addition, he employs the technique of intermittent catheterization, and has trained his nurses to perform this as competently as doctors, thereby freeing the medical staff. He has refined the procedure of air myelography so that this procedure can now be used in determining the need for surgery without the introduction of positive contrast material, which irritates the swollen cords. He has also demonstrated that paraplegic and even tetraplegic patients can have normal pregnancies and deliveries.

Aside from his clinical work, Dr. Rossier has also been involved in basic research into the problem of paraplegia. With a grant from Elizabeth Taylor and Richard Burton (whose father he treated), he has



begun studies of the neurogenic bladder, both in spinal shock, during recovery, and before and after sphincterotomies. His unit established that the presence of increased blood catecholamine levels occurs with one of the most difficult problems confronting paraplegics — that of autonomic hyperreflexia.

Dr. Rossier received his medical degree from the University of Lausanne in 1957 and his doctorate at the Medical Faculty in 1958.

## FIRST WOMAN ASSOCIATE DEAN NAMED

The first woman to be appointed to an associate deanship in the history of the Harvard Medical School is Mary C. Howell, M.D., Ph.D. Dr. Howell, 40, of Newtonville, Mass., was named associate dean for student affairs.

Dr. Howell is an assistant professor of pediatrics at Harvard and serves as chief of the behavior unit in the Children's Service of the Massachusetts General Hospital. She is responsible for a program to integrate the psychosocial and biophysical aspects of child care into a workable and effective biosocial complex.

Dr. Howell is a member of the faculty in the Harvard Graduate School of Education for the program

in clinical psychology and public practice.

As associate dean, Dr. Howell will be involved in student career planning. She will work to strengthen the role of women in medical education, health maintenance, and the delivery of health care. With her new title, Dr. Howell joins two others who also hold that post, Hermann Lisco, M.D., and Alvin F. Poussaint, M.D.

Dr. Howell received her A.B. degree in 1954 from Radcliffe College, her M.A. degree in child development and psychology in 1958, her Ph.D. degree in child development and psychology in 1962, and her M.D. degree in 1962 from the University of Minnesota.

# CLASS OF '76

One hundred and sixty-five students have registered as members of the Class of 1976 in the Harvard Medical School. Twenty-six of the 165 are entering the Harvard-Massachusetts Institute of Technology Program in the Health Sciences and Technology, now in its second year. All are candidates for the M.D. degree.

Minority groups, as identified by the federal government, comprise 20 per cent of the entering class. Twenty-one per cent are women. Minority group students include Blacks, Mexican Americans, American Indians, Puerto Ricans and Orientals.

Approximately 50 per cent of the students in the Class of 1976 have scholarship support; 62 per cent are receiving financial assistance through individual loans. Many of the minority group students will be receiving a portion of their financial support through a four year student aid program grant of \$120,000 from the Robert Wood Johnson Foundation, and through the Health Professions Student Scholarship and Loan Program of the National Institutes of Health, U.S. Department of Health, Education and Welfare. The Johnson Foundation support seeks to aid medical schools in increasing the number of students who plan to enter the practice of medicine from among minority population groups in areas now suffering a shortage of medical manpower. The average scholarship award through the Harvard Medical School and Harvard University to students in the first year class at the Harvard Medical School, according to James J. Pates, Jr., Assistant to the Dean for Student Financial Aid and Employment in the Faculty of Medicine, is \$2325 while the average loan award is \$2075. Most students who have scholarships have loans as well, Mr. Pates said.

The percentage of minority group students entered in the Harvard Medical School's current first year class is the largest in the School's 190-year history. Since 1966 the numbers of such students

at the Harvard Medical School, under the leadership of Robert H. Ebert, M.D., who became Dean of the Faculty of Medicine in 1965, has been steadily increasing. Presently, among the four classes enrolled in the Medical School, 111 can be classed as being members of minority groups.

Members of the Class of 1976 are from 58 colleges and universities including one overseas institution — Calcutta (India) University.

They represent 30 of the 50 United States, Puerto Rico, Canada, West Germany and East Africa.



**Acheson, Louise S.**

Pittsburgh, Pa. (Oberlin)

**Aller, Raymond D.**

Malibu, Calif. (U. of California, Los Angeles)

**Appelbaum, Paul S.**

Brooklyn, N.Y. (Columbia)

**Aretz, Thomas H.**

Heinsberg, W. Germany (Villanova)

**Auchincloss, Hugh, Jr.**

Ridgewood, N.J. (Yale)

**Bakal, Curtis W.**

Oceanside, N.Y. (Yale)

**Baranano, Eduardo C.**

Hato Rey, Puerto Rico (Haverford)

**Bassett, Robert L.**

Lowell, Mass. (Bowdoin)

**Batchelder, Timothy J.**

Milwaukee, Oregon (Stanford)

**Bazylewicz, Gregory A.**

Chelsea, Mass. (Northeastern)

**Beoris, Peter A.**

Kingston, Pa. (Macalester)

**Bittner, Marvin J.**

Peoria, Ill. (U. of Chicago)

**\*Bogen, Daniel K.**

Lexington, Mass. (Harvard)

**Bollin, Kenneth W.**

Livonia, Mich. (Harvard)

**\*Bonventre, Joseph V.**

New York, N.Y. (Cornell U.)

**\*Bridges, Kenneth R.**

Detroit, Mich. (U. of Michigan)



- Britt, Lunzy D.**  
Suffolk, Va. (U. of Virginia)
- Brooks, Stephen M.**  
Englewood, N.J. (Stanford)
- Bump, Thoms E.**  
Western Springs, Ill. (Harvard)
- Bursztajn, Harold**  
Paterson, N.J. (Princeton)
- Campano, Deborah D.**  
Cumberland, R.I. (Boston U.)
- Carney, Stephen**  
Chicago, Ill. (MIT)
- Carrillo, Juan E.**  
Forest Hills, N.Y. (Columbia)
- Carter, Janice H.**  
Bay Shore, N.Y. (Barnard)
- \*Cheung, Nai-Kong V.**  
North Point, Hong Kong (U. of Chicago)
- Clattenburg, Richard N., Jr.**  
Haverford, Pa. (Harvard)
- Cohen, David I.**  
Shaker Heights, Ohio (Harvard)
- \*Conrad, Chester H.**  
Kew Gardens, N.Y. (MIT)
- Croteau, Louis J.**  
Tilton, N.H. (Dartmouth)
- Curry, Wesley A., Jr.**  
Dallas, Texas (Stanford)
- Davila, Fidel, Jr.**  
McAllen, Texas (Texas Christian U.)
- Davis, Aloysius L., 3d**  
Parkersburg, W. Va. (Michigan State U.)
- Diesk, Andrea**  
Chicago, Ill. (U. of Michigan)
- Druckman, Hope L.**  
Wyncote, Pa. (U. of Pennsylvania)
- Evans, Dale G.**  
Brooklyn, N.Y. (Brooklyn Coll. of The City U. of N.Y.)
- Federico, Francesco**  
Boston, Mass. (Harvard)
- \*Fenichel, Robert R.**  
Branford, Conn. (Harvard)
- Fenton, Bradley W.**  
Great Neck, N.Y. (Harvard)
- Fishman, Mark C.**  
Philadelphia, Pa. (Yale)
- Flyer, Richard H.**  
Cedar Grove, N.J. (Yale)
- Frank, Deborah A.**  
Baltimore, Md. (Radcliffe)
- Fuchs, Richard M.**  
Woodmere, N.Y. (Yale)
- Gage, John S.**  
East Hampton, N.Y. (Yale)
- Ganem, Donald E.**  
Methuen, Mass. (Harvard)
- Ganz, Peter**  
Los Angeles, Calif. (U. of California, Los Angeles)
- Garber, Seth L.**  
Greenfield, Mass. (Harvard)
- Garcia, Sandra**  
Hacienda Hts., Calif. (U. of California, Irvine)
- Gardner, Phyllis I.**  
Macomb, Ill. (U. of Illinois)
- Garewal, Harinder S.**  
New Delhi, India (Calcutta U.)
- Gatter, Mary A.**  
Montauk, N.Y. (Marymount Coll., Tarrytown)
- Glickel, Steven Z.**  
Jackson Heights, N.Y. (State U. of New York at Buffalo)
- Glimcher, Laurie H.**  
Brookline, Mass. (Radcliffe)
- \*Godine, John E.**  
Westmount, P.Q., Canada (Princeton)
- Goldhaber, Samuel Z.**  
Waban, Mass. (Harvard)
- Goldenheim, Paul D.**  
New York, N.Y. (Harvard)
- \*Gomori, John**  
Forest Hills, N.Y. (MIT)
- Graff, Louis G., 4th**  
Hagerstown, Md. (Emory)
- Green, Laurie R.**  
Beverly Hills, Calif. (Radcliffe)
- Greenwald, Mark J.**  
Toledo, Ohio (Oberlin)
- Haith, Linwood R., Jr.**  
Fayetteville, N.C. (Yale)
- Hamer, Dean H.**  
Upper Montclair, N.J. (Trinity Coll.)
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Kansas City, Mo. (Purdue)
- Hanson, Eric C. T.**  
Saginaw, Mich. (Harvard)
- Heath, Paul M.**  
Olean, N.Y. (Greenville)
- Horowitz, Gary L.**  
Roslyn Heights, N.Y. (Harvard)
- \*Hrды, Daniel B.**  
Salt Lake City, Utah (Harvard)
- Jacobs, Marshall L.**  
Stamford, Conn. (Yale)
- Johnson, Carolyn E.**  
Detroit, Mich. (Michigan State U.)
- Johnson, Douglas C.**  
Bethesda, Md. (Amherst)
- Johnson, Randall D.**  
Red Wing, Minn. (Yale)
- Johnston, Denice A.**  
Monterey Park, Calif. (Mills)
- Joseph, Michael P.**  
Glendale, Ohio (Athenaeum)
- \*Judelson, Debra R.**  
Patchogue, N.Y. (MIT)
- \*Karaian, Charles H.**  
Fresno, Calif. (MIT)
- Kent, Dolores R.**  
Washington, D.C. (Northeastern)
- Kircher, Lorence T., 3d**  
Colorado Springs, Colo. (Harvard)



*The crash program to computerize alumni records shifted to high gear when a dozen Harvard and Radcliffe students took on the challenge to complete the task prior to the start of their college year. Order emerged from the confusion depicted in the neuroanatomy lab high in the Warren Museum.*

**\*Kirsch, Ilan R.**  
Tarzana, Calif. (MIT)

**\*Knighton, Daniel J.**  
Baltimore, Md. (MIT)

**Kohler, Ted R.**  
Marion, Ohio (Harvard)

**Kramer, Peter D.**  
Hartsdale, N.Y. (Harvard)

**Kulik, Janice E.**  
Wellsboro, Pa. (Cornell U.)

**Lake, Roger F.**  
Wheaton, Ill. (Colorado Coll.)

**Lee, Daniel C.**  
Webster, N.Y. (Harvard)

**Lemus, Lucille L.**  
Orange, Calif. (U. of California,  
Irvine)

**Lenoir, Zemmar, 3d**  
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**Levada, Andrew J.**  
Brooklyn, N.Y. (Princeton)

**Levenson, David J.**  
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**Lightfoote, Johnson B.**  
Tuskegee, Ala. (Harvard)

**Lillehei, Craig W.**  
New York, N.Y. (Cornell U.)

**Livelli, Frank D., Jr.**  
Lyndhurst, N.J. (Columbia)

**\*Livingstone, Margaret S.**  
St. Petersburg, Fla. (MIT)

**Lofgren, John P. M.**  
Tanzania, East Africa (Gustavus  
Adolphus)

**Louie, Eric K.**  
Chicago, Ill. (Harvard)

**Lyons, James A., 3d**  
Newtown Square, Pa. (Princeton)

**\*Mansfield, Frederick L.**  
Newtonville, Mass. (Harvard)

**Matheson, Jean K.**  
Arlington, Mass. (Antioch)

**McAuley, Bruce J.**  
Arcadia, Calif. (U. of California,  
Berkeley)

**McCabe, Robert E.**  
Indianapolis, Ind. (Coll. of the Holy  
Cross)

**\*Merriam, John C.**  
Tenafly, N.J. (Harvard)

**Metz, Werner P., 3d**  
Mountainside, N.J. (Harvard)

**Montes, Juan L. Z.**  
Santa Paula, Calif. (U. of California,  
Los Angeles)

**Moore, Francis D., Jr.**  
Brookline, Mass. (Harvard)



**Moore, John W. M.**  
Signal Mountain, Tenn. (U.S.  
Military Academy)

**Navarro, Daniel A.**  
Santa Barbara, Calif. (U. of  
California, Santa Barbara)

**Nelson, Leonard B.**  
Brooklyn, N.Y. (Columbia)

**Newfield, Stanley A.**  
Brooklyn, N.Y. (Columbia)

**Nierman, Eliot H.**  
Newton, Mass. (Harvard)

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Chappaqua, N.Y. (Harvard)

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Des Moines, Iowa (Yale)

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Washington, D.C. (Harvard)

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Yonkers, N.Y. (Yale)

**Pakula, Sigrid E.**  
Eugene, Ore. (U. of Chicago)

**\*Parnes, Jane R.**  
Baldwin, N.Y. (Radcliffe)

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Manhasset, N.Y. (MIT)

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Farmington, Mich. (MIT)

**Pollack, Phyllis**  
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**Pyeritz, Reed E.**  
Pittsburgh, Pa. (U. of Delaware)

**Ramenofsky, James A.**  
Peru, Ill. (Yale)

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Temple, Texas (U. of Texas, Austin)

**\*Rothenberg, Ellen**  
Waban, Mass. (Radcliffe)

**Russell, William E.**  
Dearborn Heights, Mich. (U. of  
Michigan)

**Ruttum, Mark S.**  
Salida, Colo. (U. of Colorado)

**Saletan, Stephen L.**  
Roslyn Heights, N.Y. (Harvard)

**Samarel, Allen M.**  
Flushing, N.Y. (Queens Coll.)

**Savoia, Maria C.**  
Shoreham, N.Y. (Wellesley)

**\*Schiff, Jack A.**  
Brooklyn, N.Y. (Yale)

**Sellergren, Kim R.**  
Oak Park, Ill. (Harvard)

**Shiang, Elaine L.**  
Winchester, Mass. (Wellesley)

**Shilling, David D.**  
Campbell, Calif. (Stanford)

**Slutsky, Gerald M.**  
New Haven, Conn. (Harvard)

**Smith, Brian R.**  
Montvale, N.J. (Princeton)

**Sondel, Paul M.**  
Milwaukee, Wisc. (U. of Wisconsin)

**Staubus, Linda**  
El Cerrito, Calif. (U. of California,  
Berkeley)

**\*Steinberg, Susan F.**  
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# REMINISCENCES

Why I went to Yale rather than Harvard is a question I have been asked several times since coming to Harvard Medical School in 1966.

I had wanted desperately to work with Dr. Hans Zinsser, Harvard's famous immunologist, who in those days carefully went over the records of the many who wanted to do graduate work with him. I sent him the list of my undergraduate and graduate courses at the University of Kansas together with a description of how I had spent my time in a winter of work at the labs founded by Kraepelin at the Kaiser Wilhelm Institute in Munich where the biochemist Willstaetter was in charge. I also sent reprints of the two scientific papers I had published. Dr. Zinsser was sufficiently satisfied to write that he thought I would be accepted as a candidate for the Ph.D. degree, but I would have to come for an interview.

The gates of Heaven were really opening!

When I saw him, he explained my degree would come from Radcliffe, not Harvard. I cared not a whit; my sole ambition was to work in Zinsser's labs on the subject of host factors in determining immunological status, if he thought this an appropriate subject for a thesis. He did.

What else did I want to take? Gross Pathology. Why? I carefully explained that though I knew something of comparative anatomy from a course that had allowed for a great deal of laboratory dissection on mammals and had taken another that dealt with the microscopic features of normal and diseased human tissues, I had no gross human pathology.

He seemed a little less enthusiastic than formerly and hinted I might not need to know gross pathology to go ahead with my degree. I argued that I failed to see how I could really deal adequately with my field of interest without a solid grounding in

human pathology. He seemed to agree that it would be useful.

In a most embarrassed manner, he explained.

"You'll have to take human anatomy first," he said.

"So what?" was my reaction.

If Harvard thought I had to have it as a prerequisite, I was perfectly content to spend a year in the anatomy lab.

Then came the blow. In an apologetic tone he announced, "We can issue you a cadaver." It took a few minutes for the meaning of those words to sink in. Because I was a woman, I would not be allowed to dissect in a laboratory at HMS, but if I paid my tuition, I could have the essential body to work on.

But where? I had visions of sharing a room with my new companion and quickly gave that up. Rentals had seemed high to me already and what would the police or my landlady say? Sadly, I left Dr. Zinsser's office. He seemed sad, too, and again suggested I give up gross pathology.

I decided to try Yale and Toronto before I made up my mind. The train ride to New Haven was short. So was the conversation regarding gross pathology and the degree in immunology. Why didn't I try pathology? If I made it, fine; if not, I could always go back to the anatomy laboratory.

Finally, I did take an abbreviated human anatomy course but that was to complete the requirement for an M.D. degree which I had finally been persuaded to add to my Ph.D. degree. And what a glorious experience — gross anatomy, physical diagnosis, and muscle testing on polio cases simultaneously — all many years ago in the innovative, free wheeling medical school which Yale was under the direction of Milton C. Winternitz. I don't even know if Yale had a curriculum committee but if so, they even let me substitute a cultural, historical course on physics as an entrance requirement with that similar remark, "When you need more physics, you'll be intelligent enough to get it."

LEONA BAUMGARTNER, M.D., PH.D.

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Once in a while, we like to include a serious think-piece in the *Bulletin*. An occasion arose for us when, in the prestigious pages of the *New England Journal of Medicine*, there appeared an article entitled, "Medical Care as a Right: A Refutation" by Dr. Robert M. Sade (285:1288-92, 1971) which was followed by several pages of relatively emotional reaction in the correspondence section (286:488-93, 1972) and a brisk defense of the rights of free speech by the Editor (286:486-7). At last, we thought, here is an issue for someone who is both a philosopher and historian of philosophy, and yet not detached from the worldly scene — ideal if he were a lawyer as well. (We did try a pure philosopher-historian, but our letters, even our telephone calls to Dr. Mortimer J. Adler's office in Chicago went unanswered — proving, if we needed to learn it, that he is indeed a philosopher).

Our philosopher-historian-lawyer is John T. Noonan, Jr., a native of

Boston, a graduate of Harvard College and Harvard Law School, currently professor of law at the University of California, Berkeley. He is the author of several books published by the Harvard University Press, among them *Contraception* (1965) and *The Morality of Abortion* (1970). He was formerly the Editor of the *American Journal of Jurisprudence*. Last spring he gave the Oliver Wendell Holmes, Jr., lectures at the Harvard Law School.

Our request seems to have brought out the historian in Professor Noonan. We feel especially privileged in being the first to publish this interesting article on the history of baking, filled as it is with sharp insights into the problems of another age. Perhaps Professor Noonan hopes that we will find lessons for our more complicated times. Or perhaps he implies, as Dr. Adler undoubtedly did, that we should do our thinking for ourselves.

GSR

## EDITORIALS

### Philosophy AND Wit POOR SUBSTITUTES

As one physician who recognizes that the AMA may not represent the best that American medicine can offer but who also feels that medical academicians are often in no closer touch with the medical needs of the United States, I was most disappointed with Prof. Noonan's article. This is not because I didn't enjoy it. Indeed, I found his allegory both amusing and interesting. But how long can we go on with a dialogue which has minimal relevance to the basic plight of medical care today?

On one hand, we find Dr. Sade who, appropriately alarmed about government involvement with medicine, develops a philosophical response which invites anarchy. And in opposition, we amuse ourselves with Prof. Noonan's allegory which once more jousts with the ogre of the

avaricious, conservative AMA. Yet, neither Dr. Sade's philosophizing nor Prof. Noonan's wit comes to grips with the basic problem of delivering medical care where and when it is needed.

Even if we agree that Dr. Sade's rather extreme approach can never succeed, there are certain implications in Prof. Noonan's article which deserve more balanced discussion.

First, despite its claim to virtue, the liberal wing of medicine did not become effectively involved in the care of the ghetto or rural poor until federal grants forced them to do so. Although these men have often worked in academic positions which allowed them to observe personally the needs of the poor (both on their way to work and in their clinics), they made no significant move to

help until research grants diminished and community medicine grants replaced them. Yet time and time again these "concerned" physicians are outspokenly critical of the AMA and its dollar bias. To add to the hypocrisy even now medical centers are primarily willing to care for their ghetto patients only when the government will pay for overhead costs and fees which frequently amount to \$25.00-\$35.00 per patient. Greedy, financially oriented AMA, indeed!

Moreover, according to Prof. Noonan, the sudden concern with the delivery of health care has arisen from the demands of the ghetto. How naive — although such an idea would make many anti-AMA physicians swell with pride as they rallied to the support of the blacks, received more grants for the delivery of care,



and swore at the AMA. However, politics being what it is, I would postulate that it is the middle class and even the suburban community which have moved us to action. The central city has received negligible care for years. Only when the farmer, the baker, and the young executive began to have personal trouble getting a doctor did the politicians begin to involve themselves meaningfully in the field of medicine.

Moreover, let us remember that these members of the middle class are not necessarily in favor of more government involvement in medicine. (In fact, they might support Dr. Sade's position in greater numbers than the medical profession itself). All they ask for is personal, prompt and proper medical care, and they do not think of this as a "right."

But why do these middle Americans believe they are no longer getting the medical attention they desire? Perhaps in part because they do not equate a complete blood profile with adequate care. Prof. Noonan touches on this problem when he discusses the introduction of such modern devices as the telephone. He states: "Some of the older bakers missed seeing their customers in person. . . . Technological progress, however, was against such grumblers." And later, "The perception sometimes reached by the older bakers that their true art consisted . . . in the sympathetic molding of their service to an individual human being had vanished." From this one might assume that Prof. Noonan favored a more personal approach, yet elsewhere in his article he states, "The close fitting of their service to the individual needs of those with whom they dealt was noticed to breed pragmatism, a distaste for theory, a distrust for speculation."

Well, what then does Prof. Noonan want? Perhaps what everyone wants: a well-qualified, interested physician who cares for him as a person. In fact, there are thousands of such men and women in practice. Some may not even read "the most prestigious medical journal" where Dr. Sade's article was published. Some

may even be members of the AMA. And some may not be. But few are deeply immersed in either AMA politics or involved in the formulation of the new policies which eventually will totally change medical practice in this country. But since one must have a power base to be politically effective, the average practitioner who is not represented by the AMA (50% of physicians are no longer members) is never heard. This is tragic.

As medicine moves irresistibly towards more and more technology and centralized organization, somewhere a stand must be made to allow personal care to survive. Before all physicians assume that every complaint requires a "complete workup" and that good medical care can only be dispensed from large groups or medical centers, an effort must be made to find out what allows many practitioners to deliver both personal and quality care. Furthermore, the fact that such personal care is given without greed, and that academically recommended care may not always be the best care must also be admitted. Prof. Noonan talks of "reviving community dedication." Nevertheless, in the vast area between the AMA Board of Governors and the Academic Center, such community interest has not died. Someone should call this to Prof. Noonan's attention.

In his discussion of the government "reformers" who gradually

have changed the complexion of medicine (baking), Prof. Noonan implies that this involvement can and will improve the quality and delivery of the product. Few will disagree in the areas of public health (bakery inspection). But is it not also appropriate to raise some questions regarding other governmental approaches to medicine? Has the massive infusion of federal funding improved the quality of care received in the ghetto? Will it lead to physicians spending their time more (or less) efficiently? Do more schools and physicians necessarily mean more professionals available for primary care? Are there more factors involved in a satisfactory doctor-patient relationship than the means by which a physician is remunerated and the manner of his training? If there obviously are, then what are we doing to understand them? These are questions that must be answered impartially. Yet there seems to be little desire to do so, either by the AMA or its outspoken opponents. In medicine as elsewhere there appears to be more enjoyment in confrontation than cerebration. It is much easier to call for anarchy in the *New England Journal of Medicine* or to talk of knowing which side the bread is buttered on in the *Harvard Medical Alumni Bulletin* than to answer the phone yourself when a patient needs your attention.

IRA MARKS '59





# The Case of The Talented Bakers

by John T. Noonan, Jr.

*"In a just society with a moral government it is clear  
that the only right to the bread belongs to the baker . . ."*

Robert M. Sade, M.D.

ONCE upon a time in the medieval duchy of Lichtenberg the staple food of the entire community was bread; and the bakers who baked the bread were held in great esteem. Such was their skill and their devotion to their necessary task that their art was universally recognized as a profession. Their achievements were often viewed as magical by the unlearned, while the educated were even more intelligently appreciative of the dexterity and discipline which enabled the bakers to excel.

Each baker was, in his own way, an artist. Each baked for customers known to him personally, so that usually the needs of the customer's whole family would be in his mind when he gave shape to the dough. Each stamped his own image or insignia on every cake or loaf he baked. Yet, for all their individual pride, the bakers of Lichtenberg were not unmindful of the collectivity. They were organized as a guild known as the Ancient Masters of Alchemy, a name symbolically appropriate for those so skilled in transmuting common grains into masterworks.

As might be expected in the circumstances, apprenticeship in such an honored art was onerous, regularly lasting seven or more years. Candidates able to qualify for admission to the guild were not numerous. Yet such was the fame of baking in Lichtenberg that many private citizens put up purses to support young persons to live during the years of apprenticeship and to pay those bakers so public-spirited as to take time from their own baking in order to impart the essentials of their craft to the novice.

True, not every citizen of Lichtenberg had equal access to the services of the masters and the apprentices. There were those so poor that they had to make their bread at home and be content with loaves of barley which were coarse and lumpy in comparison with the risen white of the professional bakers; there were even those, so it was rumored and occasionally demonstrated by chance discoveries, who made their bread at home from acorns. The masters of the guild were generous enough to recognize that such resort to self-help was the result of ignorance or poverty



rather than malevolence; and they advocated no imposition of penalties on this unfortunate class who by unavoidable accident, as it were, invaded the sphere which law and knowledge had reserved to members of the guild.

The ordinary prosperous citizen of the duchy had money enough to afford white bread on Sundays and to buy cakes on occasions when skilled baking seemed important, such as weddings and birthdays. The rich of the community were almost entirely satisfied. They had white bread baked by a member of the guild whenever they wanted it, and when propriety required, as it did on all manner of anniversaries, they had G noises, Charlottes, and Mont Blancs.

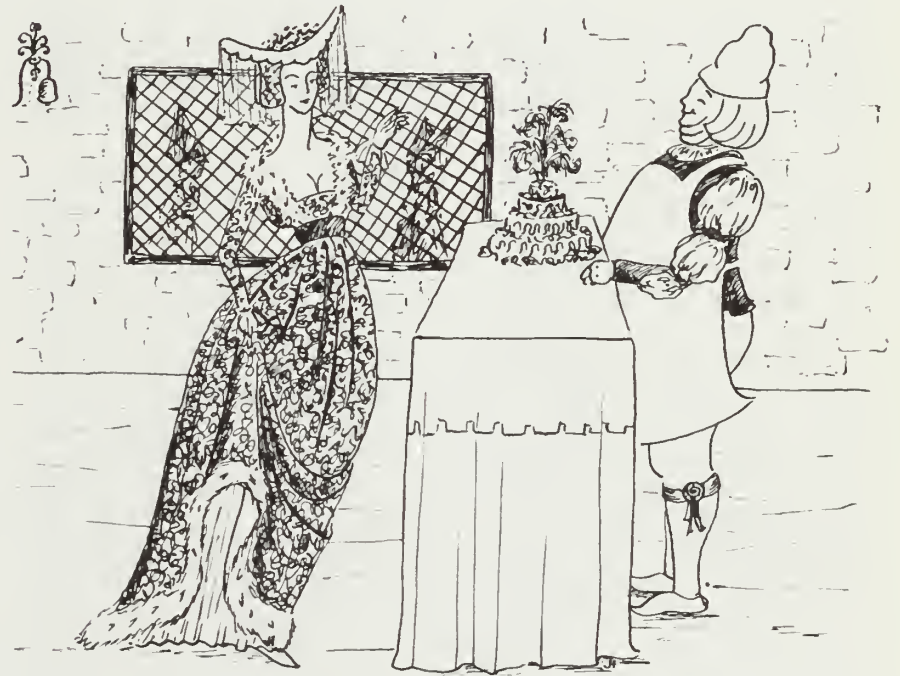
As was only natural with such a range in clientele and such a range in services, more was charged for the more complicated designs. A well-executed G noise might cost twenty or even forty times a simple loaf of French white. Since the rich or at least the prosperous were those with taste enough to order the more delicate confections, it seemed evidently fair to charge them in accordance with their pocketbooks. Such was the surplus received in this way by the better bakers that some of the more civic-minded of them were able to donate a portion of their time to making white bread for those accustomed to bread formed from barley or from acorns. The boast of the masters was that on any occasion when a poor man needed a cake — as, for example, on the wedding of his oldest daughter — a master baker would see to it that cake he had.

The spirit of this guild was wholly remarkable. No doubt, the substantial rewards in popular esteem and in gold which followed the onerous apprenticeship were incentive to some to choose this course and to persevere in it. But most were sustained in their vocation by the consciousness that they fulfilled a tangible need of their neighbors, and a basic need at that. Some masters even understood the purpose of their lives to be the sustaining of life

in others. Among them the saying of Plato was axiomatic, "No physician, in so far as he is a physician considers his own good in what he prescribes but the good of his patient, for the true physician, is also a ruler having the human being as his subject, and is not a mere moneymaker;"<sup>1</sup> and they applied this saying by analogy to their own craft, substituting baker for physician and customer for patient. A few — not giving their bread away, for that would have been contrary to the canons of the guild — nonetheless took for it only whatever the customer thought it was worth or was able to pay, so that from them the very

for payment. The close fitting of their service to the individual needs of those with whom they dealt was noticed to breed a pragmatism, a distaste for theory, a distrust of speculation. Focus on individual customers was perceived to foster a preference for intuition over abstraction, at the same time that the bakers enjoyed a sense of intellectual superiority to their customers who seemed as malleable as their own dough.

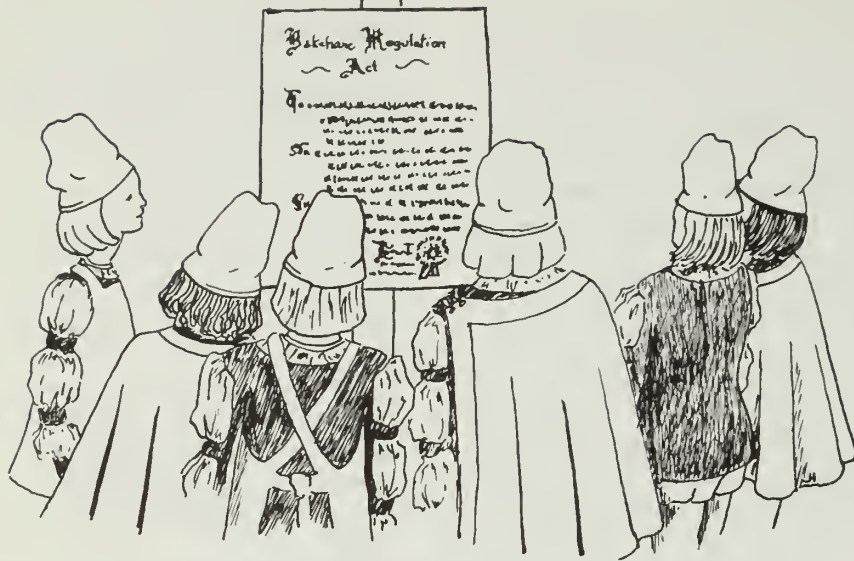
The bakers' own education was eminently practical, so that the great majority of them had slight acquaintance with the larger intellectual enterprises of mankind. When they



poor could sometimes have the most elaborate cutting for a Turk's Head. The majority of masters enjoyed what they were doing and were artists in their baking because it satisfied their own sense of accomplishment.

There were those captious enough to sneer at the spiritual aspirations and intellectual pretensions of the bakers. It was observed that the essence of their art was highly practical, the molding of bread satisfactory to their customers in exchange

ventured to give opinions outside their realm of baking, they would proceed with the assurance of men used to meeting practical demands, confident that once their attention had been directed to problems which had long plagued the community, their keen good sense would rapidly resolve them. They were disdainful of politicians, distrustful of lawyers, skeptical of ministers, impatient of philosophers. Such respect as they had developed for the life of the mind was reserved for those chem-



In the same regime other modern devices were introduced in the duchy, including automobiles and telephones. The automobiles permitted the bakers to make their deliveries by truck, and although a number of their clients were killed every year by the automobiles, the bakers did not view the general health of their customers as their problem; their job, they thought, was to meet the demand for bread. Some of the older bakers missed seeing their customers in person, and the neologism "depersonalization" even enjoyed a currency among them to describe what was happening to their art. Technological progress, however, was against such grumblers and when the telephone, answered by a paid assistant, permitted almost all orders to be placed and filled without the customers setting foot in the bakery, few bakers were able to resist its combination of convenience and efficiency.

AT this time a great stir was made in Lichtenberg by the problem of "the unwanted Wurzelbergers." These Wurzelbergers were in truth the offspring of Lichtenbergers who had mated with Wurzelbergers, but as Wurzelberg and Lichtenberg had been at war, few of these unions had been registered as the law required, and in a small country like Lichtenberg, the addition of a number of new mouths to feed was unwelcome. The more enlightened Lichtenbergers, therefore, proposed that this undesired bump in their demographic curve be flattened by eliminating its cause. They pointed out that most of those to be affected were illegitimate so that they would never have good homes in any event, and they added that as the Wurzelbergers were of African origin many of the illegitimate offspring were black. They proposed to accomplish their social surgery humanely by the simple expedient of not feeding unwanted newborn Wurzelbergers.

When the bakers had been apprised of this plan, devised by some

ists who assiduously devoted themselves to the development of better grains, better yeast, and better ovens to the perfection of the baker's art. It was thought indeed by the snobbish critics of the bakers that the sole intellectual input into the profession was made by these researchers and that the bakers' own conviction, though deeply entrenched, that they were engaged in an enterprise requiring the highest human intelligence, was a delusion. Suggestions of this sort rarely fell on the bakers' ears and when they did were easily dismissed as the bellyaching of those unlucky enough not to possess a profession which was at once lucrative, helpful, and mentally demanding.

This happy regime — for among the citizens of Lichtenberg few were as happy and not many as prosperous as the bakers — was put in peril by a new Grand Duke of the duchy who had been sent away for advanced schooling at the University of Cambridge and had returned brimful of ideas of reform. On ascending the throne as Louis I, the young Duke eventually succeeded in putting into operation one reform modelled on English legislation and known as the Bakery Regulation Act. This law set standards of sanitation for the bakeries and authorized a corps of royal inspectors to enforce them. As a consequence of this innovation,

fewer customers died of food poisoning. But the older bakers saw it as the first fateful step to ending their autonomy.

Louis III, a reformer like his grandfather, was resolved to expand the bakeries, so that more people in the duchy might have access to white bread. To this end he began to give ducal subsidies to the research chemists that they might devise ways of enlarging the ovens and improving the refrigeration. The richer bakers were pleased with this assistance as a means of increasing their opportunities for service and for profit; but the more perspicacious saw it — to use the anachronistic nomadic metaphor then in vogue — as the camel's nose within their tent.

By the time of Louis V the prophecies of the perspicacious few had been amply confirmed. Not only was the Grand Duke policing the sanitation of the bakeries and financing research for their development, he was actually paying for their construction. He was, moreover, taking an active interest in the education of the apprentices, and the grand ducal largesse now available for aspirants made the old private bourses seem obsolete at the same time that it lessened the need for the spartan endurance which had formerly tested the characters of the young applicants to membership in the guild.



of the best minds in Lichtenberg and copiously publicized by Lichtenberg's great morning newspaper, *Die Zeit*, they divided in their reactions. Some of the older bakers murmured that it was contrary to the ancient oath of admission to the guild to deny bread to any person, large or small. Others asked, "How do we know a Wurzelberger is a person?" But the boldest spirits among the bakers thought this question as silly as concern for their oath. They rejoiced that "the process of eroding the old ethic and substituting the new has already begun."<sup>2</sup> They affirmed their willingness to aid in eliminating the threat to Lichtenberg's ecology.

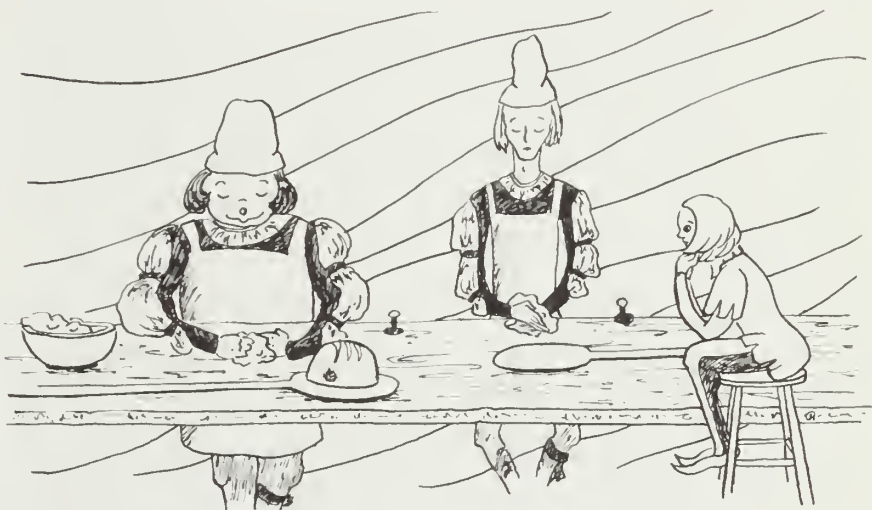
The majority of bakers, however, were content with none of these solutions. To them it seemed a monstrous intrusion on their sovereign province of breadmaking that the duchy or the public or the press should tell them who they should or should not feed. "Baking," so their thought ran, "has always been a matter between the customers and the baker. It is we who will decide whether it is for the best interest of a Lichtenberger customer to provide bread for her unwanted Wurzelberger baby. Philosophical abstractions and ethical palaver have no place in this decision. It is solely a matter for our professional judgment." They were willing, however, to agree that the duchy might pay them a premium for every Wurzelberger they did not feed.

The assertion of the autonomy of the bakers could not have been made at a time when it would have been received with more applause from the guild as a whole. Trucks and telephones had so reduced the ordinary baker's contact with his customers that strong surges of doubt about their service to the community were often experienced by many of them. "We are, after all, in business just like the others," was a thought which, however frequently suppressed, might sometimes rebelliously rise to the surface of a baker's mind. The perception sometimes reached by the old bakers that their true art consisted not so much in

the making of a Génoise or a Charlotte but in the sympathetic molding of their service to an individual human being, had vanished. The sensitive among them could not help observing that now the attraction of the profession to many was neither the service to others nor the artistry of their work nor the esteem of their compatriots but the tangible compensation of cash. The consciousness that most of their education, most of their bakeries, and most of their research was paid for by the Grand Duke made those mindful of the golden days all the more anxious to declare their true independence of everyone else.

In these circumstances it was not surprising that one of their number who had been reading the seventeenth-century political philosopher Hobbes, or who had perhaps been reading the twentieth-century novel-

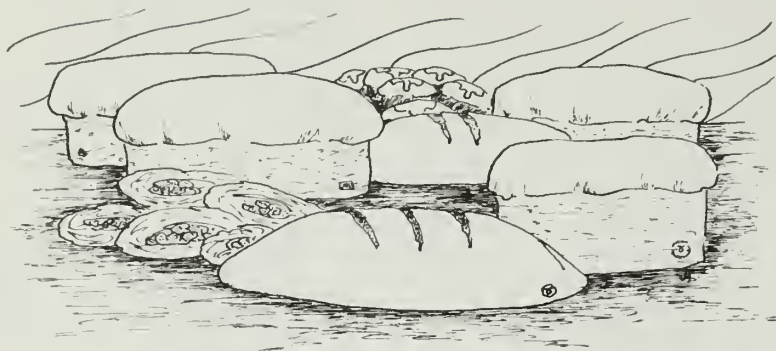
This famous essay began by asserting the right of each man to life — the right so long defended and served by the bakers' guild. From this premise, the author deduced the right to choose the values necessary to sustain one's own life, the right to achieve those values according to one's own best judgment, and the right to dispose of the values once gained in any way one chose. Any invasion of these rights, the author declared, would be a form of enslavement and "surely compromise or destroy the right to life itself." As all law was coercive, backing its commands by force, so all law making a man do what he did not will to do was "anti-mind" and so "anti-life." With these simple and breathtaking principles, the author constructed a platform from which he could assail all regulations of the duchy in the slightest degree restraining the lib-



ist Rand, should compose an essay in which he put as forcefully as possible the postulates necessary to protect the integrity of the guild. The essay was published in the most prestigious journal of the bakers, and so confident was its author of the reception it would justly receive that he took precautions at its beginning to give an address where the bakers might write to receive reprints to circulate among their customers or hang for their private enjoyment in their offices.

erty of bakers to bake as they saw fit. The choice to buy bread, he asserted eloquently, depends upon the customers; the choice to provide it depends upon the baker.<sup>3</sup>

When this article was disseminated for the edification of the citizens of Lichtenberg, the responses were various. The lawyers wondered openly why its author had so readily adopted the view made fashionable in 1900 by the American jurist Holmes that law was made for bad men. Is it possible, they speculated,



that the bakers were not aware of how often law is made for the doubtful or the perplexed? Do they not perceive in their own lives how often law, far from being coercive, merely affords channels for human cooperation, for the pooling of human energies and talents? Surely they make contracts, and they marry, and they are organized in corporations. Do they never ponder on how creations of the law like contracts and marriages and corporations fit the model of law as a decree backed by a bayonet or gun?<sup>4</sup>

The philosophers spent little time in marvelling at how a man of their own century could conceive of developing himself without dependence on other human beings as though he were an atom or a monad. It is plain, they thought, this author has not begun to reflect upon his condition in the world, much less is he familiar with most of the reflections of others. The theologians were inclined to treat the matter moralistically, remarking how often it had occurred that when man was not recognized as having a supernatural destiny, he made a god of the state or of himself. The psychiatrists uttered sententious judgments on identity crises and the mechanisms of compensation.

The ordinary folk of the duchy took great umbrage from the article. "Suppose," said one, "that our plumbers were to act on this philosophy and to come to fix our leaks only when it served their pleasure and at prices they chose to set. One could go

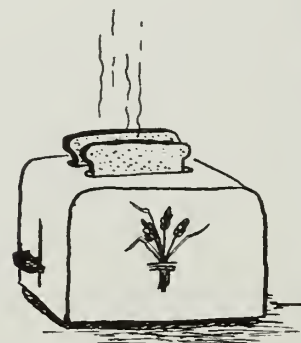
a week or a month with a leaking faucet and no plumber." "Suppose," said another, even more excitedly, "that our physicians were like this. A man could die without a doctor feeling the smallest compunction about not leaving the golf course to help him." "I have a solution," said a third who wore a large button proclaiming "Love Lichtenberg or leave it." But his solution can be imagined.

As Lichtenberg, with all its faults, was highly tolerant of free speech, nothing drastic happened to the author of the article; and he himself did nothing drastic. Despising the cry of the citizens as disguised forms of the coercion he held in contempt, he continued to bake in his old bakery, constructed though it had been by the duchy; he did not renounce the fruits of research financed by the Duke; and he used as assistants a number of students whose education had been paid for by the community. Despite his own firm principles, he did not cease to pay his taxes.

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1. Plato, *The Republic*, Jowett trans., Bk I, 342.
2. Anonymous, Editorial, *California Medicine*, 113:67 (1970).
3. cf. Robert M. Sade, "Medical Care as a Right: A Refutation," *The New England Journal of Medicine*, (1971) p. 1288.
4. cf. Lon L. Fuller, "Human Interaction and the Law," *American Journal of Jurisprudence*, 14:1-7, 33-36 (1969).

The more thoughtful bakers, nonetheless, were troubled by the portent of a respected member of their art authoring such a piece and consulted among themselves on how to revive the communal dedication, of whose loss the article was symptomatic. Those who believed in theoretical education suggested that courses in political philosophy and professional responsibility would inoculate young bakers against the virus which had broken out so violently in their colleague. Lovers of the humanities — and there were still a rare few of these among the bakers — supposed that immersion in the great literature and art of mankind could extend the human sympathies which were feeble and faint in so many bakers of the day. Religious-minded men — a handful were left — thought that only a transcendental perspective could ever reconcile the claims of self and society and orient the bakers in what, being called a vocation, supposed the existence of a call. Personalists insisted that the sole education capable of overcoming the solipsism so widely manifested among the bakers was the example of personal unselfishness and kindness to fellow creatures of all sizes. The practical-minded shrugged at all suggestions, observing that small damage could come from the theories advocated by the articulate baker, for they could not be acted on for longer than an hour. One and all, however, could agree that the finest wisdom was contained in the antique motto of the Ancient Masters of Alchemy: "Before you serve the toast, know on which side your bread is buttered."





# THE WILLIAM O. MOSELEY, JR.

## TRAVELLING FELLOWSHIPS

THE BEQUEST OF JULIA M. MOSELEY MAKES AVAILABLE FELLOWSHIP FUNDS FOR GRADUATES  
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The Committee on Fellowships in the Medical School has voted that the amounts awarded for stipend and travelling expenses will be determined by the specific needs of the individual.

In considering candidates for the Moseley Travelling Fellowships, the Committee will give preference to those Harvard Medical School graduates who have—

1. **Already demonstrated their ability to make original contributions to knowledge.**
2. **Planned a program of study which in the Committee's opinion will contribute significantly to their development as teachers and scholars.**
3. **Clearly plan to devote themselves to careers in academic medicine and the medical sciences.**

*Individuals who have already attained Faculty rank at Harvard or elsewhere will not ordinarily be considered eligible for these awards.*

There is no specific due date for the receipt of applications or for the beginning date of Awards except that the Committee requests that applications not be submitted more than 18 months in advance of the requested beginning date. The Committee will meet once a year in January to review all applications on file. Applicants will be notified of the decision of the Committee by January 31. The Committee may request candidates to present themselves for personal interviews.

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*Application forms may be obtained from, and completed applications should be returned to:*

SECRETARY, COMMITTEE ON FELLOWSHIPS IN THE MEDICAL SCHOOL  
HARVARD MEDICAL SCHOOL  
25 SHATTUCK STREET, BOSTON, MASSACHUSETTS 02115

**S**EVENTY-SIX years ago my great uncle gave this same oration under the title of "The New Epoch and the University." Later it was included in a small volume outlining other implications of "the new epoch" he found to be dawning as a result of the fact that "man" as he put it, "[had] learned to manufacture power." He was, of course, not the only person of his generation to be concerned. Three years earlier, another New Englander had attended the World's Fair in Chicago where he muscd about the difference between the Virgin and the dynamo.

The Phi Beta Kappa orator of 1896 was an engineer rather than a historian-philosopher, but he realized that what he called "the professional spirit" involved more than a knowledge, however profound, of a single discipline or technology.

"To training and instruction," he said, "must be added the spirit which alone makes men worthy of the power education gives them. They must not only know how to work, but they must do it in the spirit which the best good of the community demands. . . . Increased powers are susceptible of abuse as well as use, and the evil of the abuse has sometimes exceeded the good of the use . . . The antidote for these evils which selfishness begets is that power which, working in many ways and for many objects, takes man out of himself and is called love, whether that love be for human beings, for animal life, for inanimate objects, or for laws and principles, which are at least as real as anything else."

Today, most of the desirable and undesirable effects of man's increasing manufacture of power foreseen by 19th century prophets have indeed come to pass, and in even larger measure than they could have foreseen.

What, then, is the outlook for changing man if not into a full image of love at least to that professional "spirit which alone makes man worthy of the power education gives him."

Recent developments in psychol-

ogy, neuropharmacology, and genetics have raised the possibility of reshaping human behavior in what seem like very drastic ways. The legal, moral, and ethical implications of these new technologies are currently the subject of active and sometimes acrimonious debate; and there are those who worry learnedly about Prometheus and the sin of presumption.

In spite of these very real dangers, I have come to believe that to stress them overmuch is to be too complacent about things as they are. By accepting man as he is as the standard of what he ought to be, one is in danger of slipping into a natural law position of a particularly unenlightening and paralyzing kind.

Neither our complacency about the best of all possible worlds, nor our fear of the worst should deter us from thinking hard and long about how best to use our power over ourselves to change ourselves, so as to save ourselves from ourselves.

As a first step, I propose that we look at some adjustments we have made in the past to such scientific advances as have occurred and see if any general principles may be derived from this experience. The new biology probably holds no more danger than the old biology. Progress in agriculture and medicine have already greatly changed our lives. Adjustment to these changes has, in turn, involved large scale and very deep changes in human behavior which add up, in some sense at least, to a change in human nature, and certainly to a redesign of the cul-

# CHANGING OURSELVES:

by ROBERT S. MORISON '34

ture. Although many of these adjustments came about more or less automatically or unconsciously, many others are of the kind that in addition, can be elicited by conscious manipulation of rewards and punishments, by changing the gene pool, by the use of drugs, or, as Professor Skinner might say, as part of an effort to redesign a culture.

It was about 8-10,000 years ago that men first began to plant seeds, harvest crops, domesticate animals, and store food from one season to the next. The development of this complex technology seems to have led, in turn, to the development of ideas about private property and land, and the economic utility of slavery. Sustained wars became cost-effective because of the land and slaves that resulted; and at the same time, they were made possible by the food reserves provided by the new technology. Perhaps most fateful of all, was the sustained rise in the world's population that set in after the development of agriculture and that simply speeded up a little as man applied biology to his own diseases a little over a century ago.

It is, of course, useless to ask whether, if there had been an Office of Technology Assessment in Kurdistan 10,000 years ago, it would have advised withdrawing support from those citizens who were doing research on holding grain seeds over from one season to the next. Even more bizarre is the thought that such an office in 19th century London would have kept Chadwick and the other sanitary and social reformers



# ARROGANCE

## OR OBLIGATION

from removing the misery and vice from the great towns of England. Nobody, in fact, did blow such a whistle, and as a result we now have a number of new problems on our hands. Indeed, in a town which supports the work of those computer experts so appropriately named Forrester and Meadows, it is only redundant to recall that all systems are go for catastrophe in the next century or so.

It is, of course, impossible to review all the individual and social changes which took place in response to the invention of agriculture, but I would like to turn to a few examples of how behavior has changed in the more or less recent past in response to the changing relationships between the number of people, the amount of resources, and the quality of the environment.

**T**HE growth of the western population from the beginning of the Christian era until perhaps the 18th century seems to have been principally controlled by the four horsemen, or as Malthus forcefully put it, by misery and vice. From then on, human beings became increasingly conscious of some of the issues and began to readjust their behavior. For most of the 19th century, the age of marriage rose steadily in most of Europe and, even more remarkably, large numbers of people refrained from marriage and childbearing entirely. It is widely believed that many of those who did marry resorted to the sin of Onan and, somewhat later,

to even more artificial methods of birth control. Abortion increased, until, in some countries, it became the major method of population control. For a time in the 18th and 19th centuries infanticide was revived, as Professor Langer has shown, in an ingenious collective form which reduced the individual consciousness of sin. I submit that the adjustment just described constituted really massive changes in human behavior at a point of most profound and intimate concern. Most of them came about as individual responses to what Professor Skinner calls "contingencies" — the desire for larger farms, or less crowded urban housing, and more recently for a motor scooter, TV set or an automobile.

Admirers of laissez-faire can complacently point out that all these changes came about automatically with no encroachments on individual liberty and in good time to save Europe from the Malthusian catastrophe. But what about the rest of the world where populations are now rising two to three times as fast as they ever did in Europe, and the economy is not progressing fast enough to make the rewards of abstinence visible to the general public? Must we then sit quietly by and let nature take its course back towards misery and vice? The trend in answering these questions now seems pretty clear. Virtually all countries, including many predominantly Catholic ones, encourage the dissemination of information, materials and procedures for preventing the birth of children. The mix of permitted

and encouraged procedures is quite different from country to country but in principle, almost all recognize the desirability of making it easier for people to respond to existing incentives towards smaller family size.

What about manipulating the reinforcing contingencies themselves? In this phase of the operation, formal government action, if any, is frequently limited to educational campaigns; but many of these apply modern technologies for transmitting information. Although unofficial agencies, scholarly journals, and even the popular press may mention that money not spent on children can be used to purchase household appliances and sporting goods, government propaganda in most cases tends to be restrained in these areas.

But birth rates in many areas are not falling very fast and, consequently, population experts are beginning to wonder out loud whether conventional family planning will do the job. Some with crusading zeal, others with gingerly regret, are suggesting more active measures, ranging from the giving of monetary rewards to performing compulsory abortions, and including such exotic and speculative means as placing contraceptive substances in the water supply.

Leaving aside the clearly compulsory proposals, how far are the leaders of a society allowed to go in using current knowledge about human responses to rewards and punishments to shape the behavior of the general public? One of the obvious possibilities is the manipulation of taxation to reduce the advantages and perhaps increase the burdens of the parents of additional children. Given the fact that tax incentives and disincentives have long been used to encourage some activities and discourage others, there can be scarcely any objection *in principle*. There are, however, other objections of a more practical sort. For one thing, tax incentives may not work as well as Professor Skinner's food pellets work with his pigeons. A more serious objection is that tax disincentives work against the wel-

farc of the innocent children even more than they bear on the improvident parents.

It remains to consider direct rewards in kind for refraining from having children. In India, for example, males offering themselves for vasectomy have been given a transistor radio. From the psychological standpoint, this kind of incentive has the merit of appearing simultaneously with the completion of the desired act. Furthermore, the gift acquaints the individual directly with one of the presumed merits of a technological society. Finally, it facilitates a continuous flow of information about how to function as a proper member of the rapidly evolving Indian commonwealth.

Various persons, more ethically sensitive, perhaps, than your present writer, have questioned the propriety of such explicitly arranged rewards, and speak pejoratively of "bribery." The very use of the word is supposed to make us so ashamed of ourselves that we will drop all future proposals of this kind. If this argument fails, they go on to discuss the problem in terms of freedom and coercion. By offering the reward or bribe, they say, we distort or interfere with the individual's right to be himself, and to follow his reproductive instinct wherever it takes him. A more sensible view of human freedom and dignity might emphasize the extraordinary ability of human beings to compare one stimulus with another, to delay response, and to project the probable results of various courses of action into the future before deciding on a particular one. To me this latter view confers on man a freedom far wider and more challenging than the freedom thought to inhere in some inner Aristotelian essence or nature which prompts each man to act independently (or ignorantly) of the external circumstances.

Thus, by holding out to the Indian peasant a transistor radio as an incentive to vasectomy, the Indian government may be said to increase rather than decrease the peasant's freedom, for by so doing, it gives

him another option, a satisfactory alternative to having additional children. He is thus made free either to choose a new way of life, or to condemn himself to perpetual poverty by continuing to do what comes naturally.

## THE INDIVIDUAL MUST BE LEFT WITH THE ABILITY TO MAKE AN ULTIMATE CHOICE.

SOMEWHAT knottier questions arise when we scrutinize the position of the government or any other social agency in affairs of this kind. We spoke earlier about the sin of presumption in abstract terms, and here we seem to be coming close to it in concrete reality. There is simply no blinking the fact that the government *is* acting in such cases as though it knows best what other people ought to do. In the case under discussion, I believe that the following circumstances greatly extenuate — if they do not, indeed, entirely eliminate — the accusation of hubris. The government has committed itself with the overwhelming support of its people to raising the standard of living. All authorities agree that it will be impossible to do this unless the rate of growth of the population falls sufficiently to allow substantial rates of capital formation. In all developing societies in which the matter has been studied, improvement in individual welfare is significantly, but inversely correlated with family size. In other words, the probability is high that the individual peasant who has a vasectomy after two or three children will himself be better off. As these facts become widely known, the government is in the position of acting on the basis of commonly shared knowledge; and in a democracy, of course, its decisions can be challenged at the polls. In effect, the government can be thought of as arriving at a group de-

cision to use modern incentives to change the behavior of individuals within the group for the almost certain advantage of the group as a whole, and for the very probable advantage of the participating individuals.

It is also important to note that because of the more gradual way the population rose during the 18th century, Europeans had several generations to learn how to respond. India may have only a couple of decades. By presenting the transistor radio here and now, it is simply doing promptly, explicitly, and by design what came about slowly, unconsciously and automatically in Europe.

The foregoing is as good as example as I can think of of an actual instance in which a society is consciously adjusting some contingencies in order, as Professor Skinner puts it, to design a new culture. In the circumstances, it seems to me wholly justifiable. Admittedly, the transistor-vasectomy case is a bit oversimplified, since it apparently involves eliciting only a single bit of behavior as the response to a single contingency. Various refinements in the nature of the rewards, and especially in the schedules of reinforcement, can bring it closer to the classical Skinnerian model without modifying the principle involved. In my view, however, there is one point at which it is essential to depart from a strict Skinnerian model. The designers of a culture should never be so sure about what they want other people to do as Professor Skinner is sure about what he wants his pigeons to do. In being presented with the contingencies, the individual must be left with the ability to



make an ultimate choice. In the case under discussion, the orthodox Hindu, who feels that at all costs he must have one son to light his funeral pyre, is still left free to have as many children as the Lord will confer upon him. After all, even in India, ten rupees will not buy one's immortal soul.

**L**ET us summarize the aspects of this case that serve to allay our anxiety about the improper use of new techniques. The same principles may guide society as it extends the use of such techniques in other areas.

1. The overall objective towards which the individual behavior is to be shaped is one which is generally understood and approved.
2. The immediate objective to be reached with the aid of the new knowledge (in this case the lowering of the birthrate) has been demonstrated to be necessary for reaching the overall objective.
3. The incentives and disincentives employed bear a close relation to those that might arise automatically in a more laissez-faire society, if sufficient time were available.
4. The contingencies are so chosen that they are not so overwhelming us to force a person to choose "against his better judgment." The principle of real choice is thus preserved.

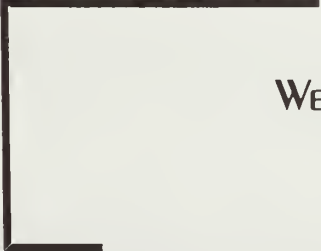
Another key to using our new knowledge safely and wisely seems to lie in providing that as many as possible of the decisions remain in the hands of the individual most likely to be immediately affected. Daniel Callahan has recently reviewed the ethical and legal advantages of placing the primary decision for abortion in the hands of the woman concerned, and I believe that many of the projected dangers of the new biology may be avoided by

steadfastly observing the same principle. I have tried to show, in another paper, for example, that the interest of parents in using the new biology to increase the probability of their having normal children is likely in most cases to coincide with the interests of society at large. In those rare cases in which the interests of the individual and society conflict, a careful explanation of all the facts will ordinarily resolve the situation far short of clear and present danger.

The more one thinks about these matters, the more it appears that we may be worrying too much about the wrong thing. We should be less concerned that man will use his new knowledge to change human nature in some disastrous direction and more worried that he will not change fast enough to avoid disaster. We began this talk with a statement, now three-quarters of a century old, that the ability to manufacture power has ushered in a new epoch that among other things would make unprece-

than from the individual, point of view, they threaten rather than support survival. Under these conditions it is recklessly self indulgent to go on arguing whether or not we should use our knowledge of ourselves to change ourselves. We simply must find ways of reducing aggression, fear, and acquisitiveness or we won't be around much longer to continue the discussion.

Since Kenneth Clark made his suggestion about using drugs to control the aggressiveness of heads of state, I have been trying to figure out how such a suggestion could possibly be put into practice in the real world. In the course of these ruminations, it has occurred to me that most decisions regarding the use of the new biology are made not in the crowd and urgency of the forum but in the quiet of the doctor's office or the half-light of the bedroom. With this in mind, and remembering also that all essays on ethics should end with a question, let me close by propounding the following parable: If you



## WE simply must find ways of REDUCING AGGRESSION, FEAR, ACQUISITIVENESS.

dented demands on man's good will and love. So far, this new power has too often been devoted to the satisfaction of the most ancient and primitive needs and impulses while good will and love have receded further into the background. The most terrifying examples are the unimaginably powerful weapons systems that help satisfy man's territorial desires and minister to his fear of other men. Perhaps equally dangerous in the long run is the use of power to satisfy man's apparently endless craving for more and more material things. Undoubtedly these character traits at one time had substantial survival value. Under present conditions, and looked at from the global, rather

were the court physician of Ivan the Terrible and you had a drug which could control the outbursts of aggression which you believed to be the signs of psychomotor epilepsy and which you could foresee might cause him to murder his son with consequent upset to the whole of society, would you have withheld the drug on the grounds that Ivan had a God-given right to be his natural self?

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*Dr. Morison is the Richard J. Schwartz Professor of Science and Society at Cornell University. The above was delivered as the 1972 Phi Beta Kappa Oration at Harvard in June.*

## "Pills AND PLANTS"

by GEORGE E. Gifford, JR., M.D.

WITH the new contact between the United States and Mainland China in 1972 and the exchange visits of physicians and scientists, it seems appropriate to chronicle the career of one of Harvard's early physicians who practiced in China in the 1840's and 50's. Additionally, it was George Rogers Hall, M.D. (1820-1899) who introduced more ornamental plants from the Orient than any other plant hunter of the 19th century.

Dr. Hall was graduated from Trinity College in Hartford, Connecticut in 1842 and from Harvard Medical School in 1846. Upon graduation he went to China and practiced in Shanghai, but returned to the United States in 1850 to marry Helen Beal of Kingston, Massachusetts. He and his bride returned to Shanghai where three of their children were born. Mrs. Hall remained in Shanghai until 1854 when political unrest made it advisable for her and the children to leave.

Hall's Shanghai practice was not a peaceful one, owing largely to the constant political ferment in the city. In the June 21, 1856 edition of the *North China Herald*, there is a reference to Dr. Hall in the advertisement section:

### Hospital at Shanghai

The walls of the Hospital are 17 feet high and afford good accommodations for patients. The terms of admittance are five dollars for any period under five days; above that one dollar a day.

Geor. Rogers Hall, M.D.  
*Medical Attendant*

F. C. Sibbald, M.D.  
*Medical Attendant*

J. D. Mugford  
*Apothecary*

Each patient must produce an order for admittance from some responsible person, addressed to the Apothecary.

The reference to the high walls indicated the turbulence in Shanghai. The city was once a fishing village on the mud flats at the north of the mighty Yangtze River. In the 19th century, with the clipper ship trade, western merchants turned the village into one of the largest cities of the world — a city founded on adventure, vice, and economic schemes. Shanghai became the principal port of central China. After the British-China Opium War was settled by the Nanking Treaty of 1842, Shanghai was designated a "treaty port." This allowed the west to exploit and tap the resources of millions of Chinese living in the Yangtze River Valley. In September 1853, Shanghai was captured by the T'ai-ping rebels who held the city until February 1855. (It was during this period that Mrs. Hall returned to the U.S.). The Americans established themselves on the north side of Suchow Creek

on a piece of land fronting the river and it is here that Hall most likely made his home. Regrettably, no records remain of Hall's hospital.

However, we do have a botanical memento of his sojourn in Shanghai. In Dr. Hall's garden was a plant often found in Chinese cemeteries. Hall introduced his amaryllis to the United States and it was distributed by the Messers. Hovey, the Boston seedmen. In a recent seed catalogue is the following:

Resurrection Lily, Magic Lily.

*Lycoris squamigera* or  
*Amaryllis Hallii*.

Clusters of large, but dainty pink trumpets perfume the air with their delightful fragrance during August. The 2½ ft. stems rise directly from the ground as if by magic. Attractive strap-shaped green foliage appears in early spring. Completely hardy. Plant 4 inches deep in semishade.

*Dr. Hall's home in Shanghai, 1854*





While in Shanghai, Hall met Edward Cunningham, a merchant from Milton, Massachusetts, and formed a life-long friendship. Perhaps because of the unrest, Hall was delighted when Cunningham suggested he accompanying him on a voyage to Japan.

On May 8, 1856, Hall wrote to his wife:

"We have embarked on board the schooner *Halcyon* and have started on our voyage for Japan. It is a rainy morning, but we do not mind trifles. Our party consists of Cunningham, Walsh and myself as cabin passengers, Captain, two officers, eight men besides our servants, cooks, etc. We are abundantly supplied with everything that could be thought of for our comfort and happiness. I wish you could have seen the *Halcyon* before she sailed from Boston. She is a beautiful craft, sails very fast and is as strong as wood and iron can make a vessel.

"We shall be absent 6 weeks or 2 months — the distance we have to sail in a direct line is about 3000 miles and if we have fair wind all the time it could take us 20 or 25 days, but we cannot expect this. We in the first place visit Nankaski, then Simota, the latter place we shall stop 10 or 12 days and make all the excursions we can into the country, see everything, make all sorts of observations, buy as many pretty things as we can get for the money each one carries. After this we go up to Hokkaido which is at the North side of the island. Here I expect to make some collections of rare plants and some of the beautiful wood which they use in making their fine boxes. We come down the Japanese Sea touching at Korea, then home.

"I shall keep a full journal and send it overland the moment we return. It is an opportunity which few persons possess of seeing this new and interesting country, especially under such favorable circumstances. One of our vessels of war will undoubtedly be at one of the ports before we leave."



*George Rogers Hall*

In another letter, Hall mentioned that Cunningham wrote an account of the trip to Japan for the *North China Herald*. The unsigned account appeared in the June 21, 1856 edition and gives some pungent and picturesque descriptions of the journey. One look at the picture of Hall as a young man and you can almost hear the following pronouncements of these young American adventures.

Very early the next morning [their ship had anchored in Nagasaki Bay on May 13] another set of officers came, one of them apparently of higher rank. They brought a boat of water, some vegetables, and sweet potatoes and 10 very small and very tough fowls, all cocks, which they presented as a present from the Governor! We agreed to accept if he would take a present in return, to which they assented and we had put in their boat some cherry cordial to which they seemed partial, and which, being the poorest article we had, approached the nearest in value and quality to what we had received.

Despite their disillusion with Japanese hospitality, both Hall and Cunningham enjoyed exploring the countryside in this strange land.

Climbing the hillsides we found a very curious strawberry or raspberry, for it was very difficult to classify, tasting and looking like a large strawberry but growing on a prickly tree or vine of considerable size.

After dinner we had a pleasant walk in the country, the roads leading over the hills that border the harbour into the village below. The people were everywhere civil and curious, resembling very much the Chinese of similar grade that one sees near Shanghai, rather livelier faces and keener featured perhaps, but not bold or manly in demeanor. The men of the working classes are naked when at work, with the exception of a narrow waist cloth, and their only garment at other times seemed to be a long robe reaching to the ankles and fastened only with a girdle, a very awkward and unbecoming dress on a naked man. The women were decently clothed, the only peculiarity being the careless exposure of the breasts, which the robe opening in front, did not conceal, nor did they seem to think it a point of modesty to cover them. They were not handsome and the custom of blackening the teeth of the married women makes many of them hideous.

Upon his return to Shanghai, Hall abandoned the practice of medicine and joined Cunningham in the more lucrative business of trade. He established residence in Yokohama where he "traveled extensively and collected plants." His reputation as a plant buyer became known throughout the countryside and natives brought him plants from the interior until he had a rare and unusual botanical collection.

Hall's first visit to Japan coincided with a period of great activity in Japanese plant introduction throughout the world. In 1853 Commodore Perry was accompanied by a botanist, Charles Wright, who made discoveries, but no introductions. In 1856 von Siebold and Co. of Leyden issued a catalog offering for sale a great many Japanese plants, newly introduced by Dr. Phillip Franz von Siebold (1791-1866), a German employed by the Dutch at Deshima (the Dutch port in Japan), who collected plants for profit. He was banished from Japan for possessing maps, then a treasonable offense, but apparently escaped with enough plants



*Amaryllis*

to start the nursery in Leyden. The Russian botanist, Maximowicz, traveled in Japan from 1859 to 1864 and he was followed by two Englishmen, John Gould Veitch in 1860, and Robert Fortune in 1860 and 1861. These collectors put a variety of plants into the hand of expert cultivators, and were appropriately rewarded in the literature by botanists.

Prior to leaving Japan for the United States, Hall delivered some plants, including a few with variegated foliage, then in high fashion in American gardens, to F. Gordon Dexter, who was returning to this country. Upon arrival, Dexter gave the plants to Francis Parkman. Parkman, the noted historian of the American Indian and author of *The Oregon Trail*, was also the best known and avid amateur horticulturist in Massachusetts. Hence, for the first time the gold-band lily (*Lilium auratum*), Parkman crab apple (*Malus Halliana Parkmanii*) and Hall's Amaryllis (*Lycoris squamigera*) were introduced into this country.

In 1861, Hall returned to the U.S. permanently and in March 1862 he delivered a large consignment of plants and seeds to the Parsons Nursery in Flushing, New York. It included the following, all of which were apparently first introductions: dwarf Japanese yew; spider-leaf Japanese maple; scarlet Japanese

maple; aucuba; Hinoki false-cypress; Sawara false-cypress; plume cypripedium; spreading euonymus; peegee hydrangea; procumbent juniper; Kobus magnolia; star magnolia; Japanese red pine; Daimyo oak; Japanese umbrella-pine; Japanese wisteria; gray bark elm; and Hall's honeysuckle.

Hall's honeysuckle (*Lonicera japonica Halliana*) is today an escaped wild flower. A weedy vine that is difficult to eradicate, it covers the ground and bushes. The flowers are white and buffy yellow in April and July. The foliage is evergreen with black berries after the bloom. It is found in Indiana, Ohio, New York, and Massachusetts south.

Along with the amaryllis and honeysuckle named for Hall, two others bear his name in botanical nomenclature: the flowering crab apple, often called Parkman's crab (*Malus Halliana Parkmanii*) and the Star magnolia (*M. stellata*), formerly called (*Magnolia Hallaena*).

Dr. George Rogers Hall, one of the early Harvard physicians to go to the Orient, is remembered today as the American of the 19th century who introduced most of the ornamental plants from that area into the United States, but particularly for a honeysuckle from Japan and an amaryllis from China.

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*Honeysuckle*







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## "THE FACE... THE INDEX OF A FEELING MIND"



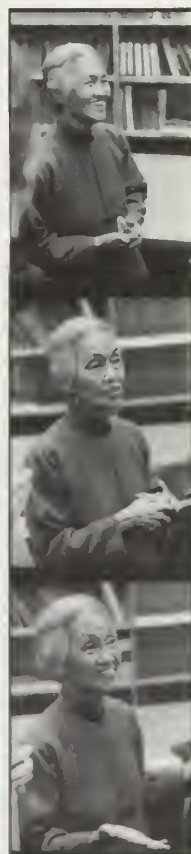
*Clockwise on this page: four members of the delegation from the People's Republic of China are greeted by Richard H. Daggy, associate dean for international programs at HSPH. Howard H. Hiatt '48, dean of the Harvard School of Public Health, officially welcomes the delegation. Drs. Chu (1) and Lin listen intently during one of the afternoon discussions. Dr. Chang explains a point to Dr. Stella Yen, who served as the group's interpreter.*





# THE TWAIN MET

Ten medical doctors from the People's Republic of China spent four days in Boston during October as part of their three-week tour of medical and health facilities in the U.S. While in Boston, they visited Tufts, Boston University, and Harvard medical schools, the Harvard School of Public Health, and various hospitals. On October 20, four members of the Chinese delegation spent the afternoon in conference with several members of the HSPH faculty, after which they were honored at a reception in the Nutrition Library. On Saturday, several members toured the Countway Library and were later joined by the entire delegation for luncheon with HMS students.



Clockwise on this page: Dr. Chu and a HSPH student sip tea during the reception; Dr. Hiatt extends greetings to the visitors. The delegation enjoy luncheon at the Countway Library. Mr. Wang chats with HSPH faculty.



